Memory

Write at 10 Gbps
Read at 10 Gbps

Figure 1 (Prior Art)

Queue 0

Queue 1

Queue 2

Queue 3

201 202 203

Scheduler

204

Figure 2

Module 0	Module 1	Module 2	....	Module n-1
301	302	303		304

w — R Gbps

Figure 3

number of modules = 4
P(module getting selected) = 0.25
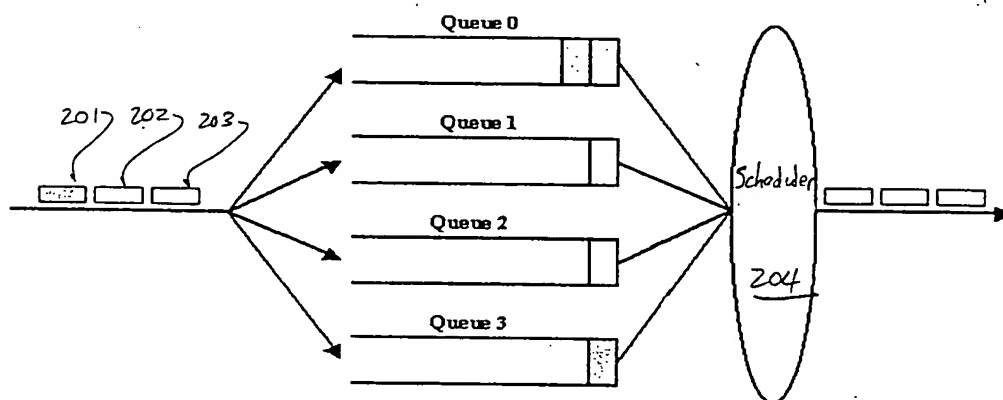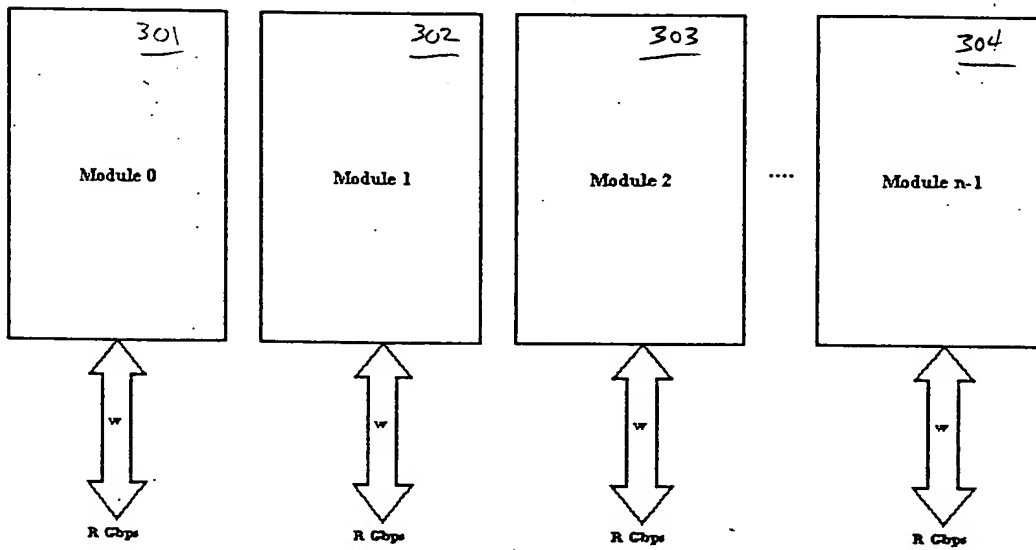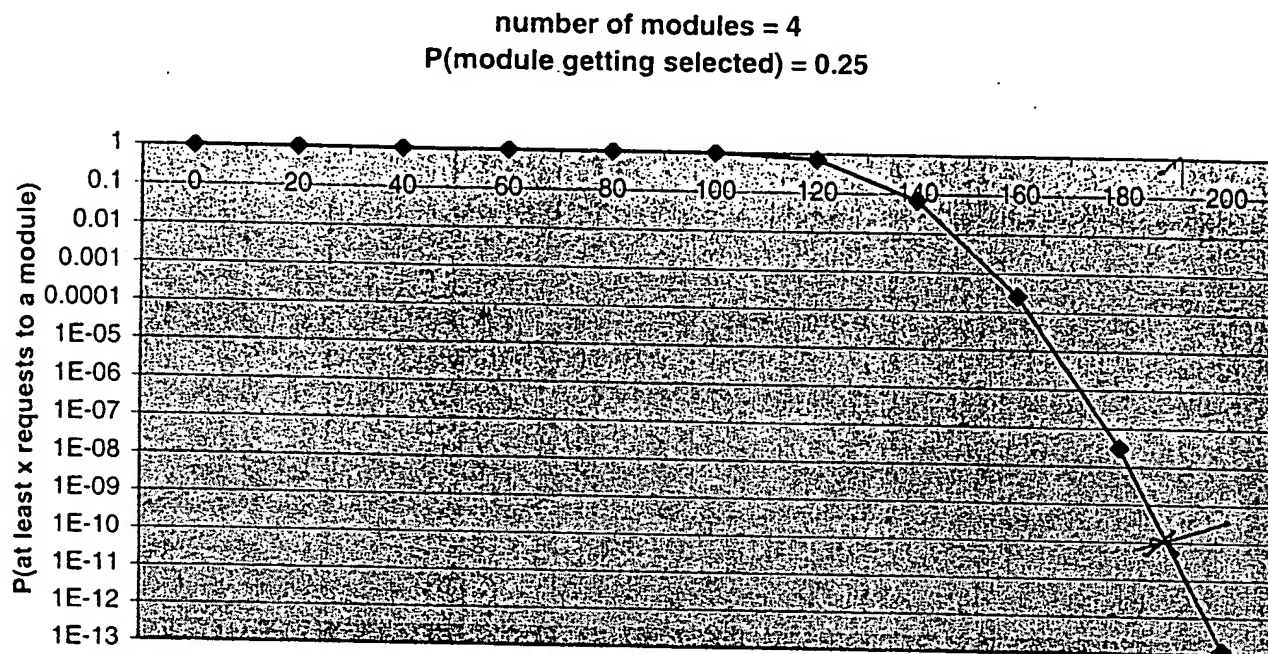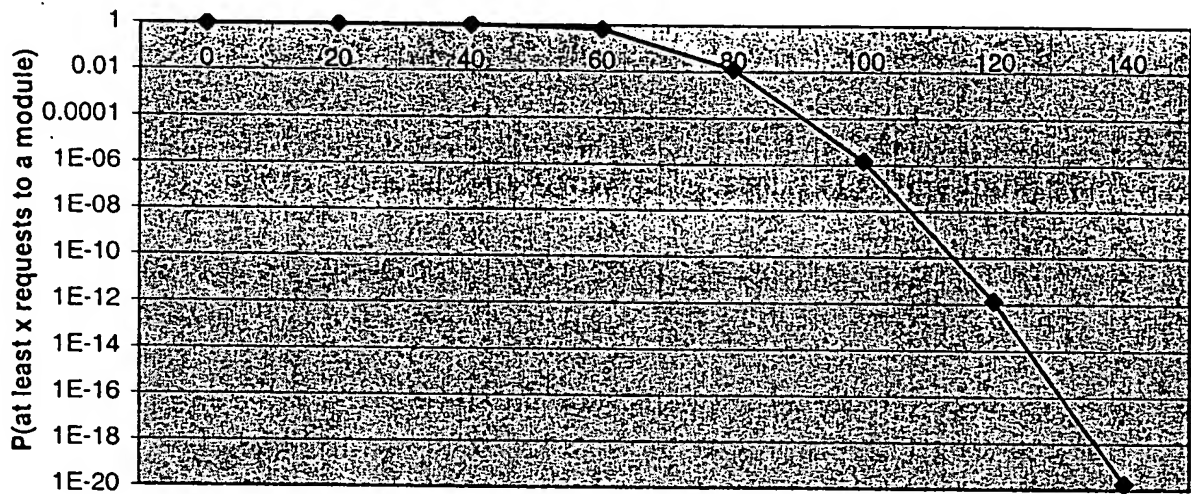

Number of Requests To A Given Module Out of
500 Consecutive Requests

Figure 4

number of modules = 8
P(module getting selected) = 0.125

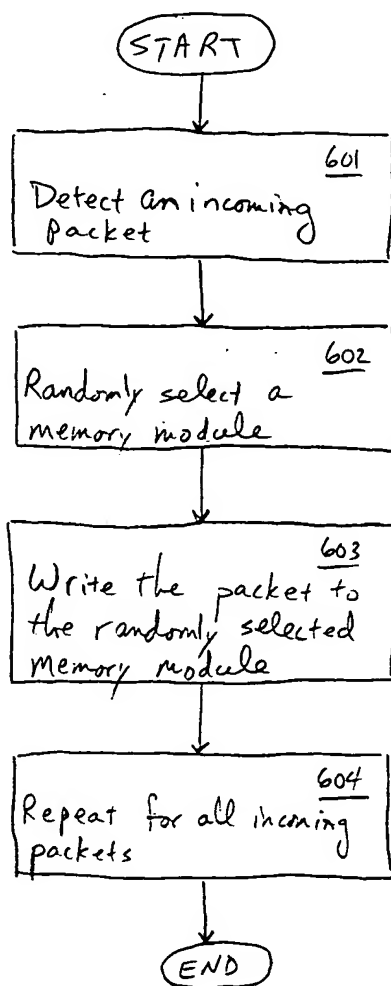Number of Requests to a Given Module Out of 500 Consecutive Requests

Figure 5

START

Detect an incoming packet
601

Randomly select a memory module
602

Write the packet to the randomly selected memory module
603

Repeat for all incoming packets
604

END

Figure 6